CLAIMS

~~WHAT IS CLAIMED IS:~~

1.——A method for wireless communication, comprising:

determining a wideband allocation of resources for transmitting uplink wireless communications;

determining a frequency hopping offset related to one or more narrowbands for transmitting uplink wireless communications;

determining whether to apply the frequency hopping offset to the wideband allocation in communicating data based, at least in part, on a location of resources of the wideband allocation with respect to the one or more narrowbands; and

communicating, based on determining whether to apply the frequency hopping offset, the data over resources related to the wideband allocation with the frequency hopping offset applied.

2.——The method of claim 1, wherein determining whether to apply the frequency hopping offset ~~is~~comprises determining not to apply the frequency hopping offset based at least in part on determining ~~a~~the location of resources of the wideband allocation with respect to the one or more narrowbands~~, based at least on a narrowband location of the one or more narrowbands and the resources outside one or more narrowbands.~~.

3.——The method of claim ~~2~~1, wherein determining whether to apply the frequency hopping offset comprises determining to apply the frequency hopping offset where ~~the~~ resources of the wideband allocation are within the one or more narrowbands.

4.——The method of claim 2, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where the resources of the wideband allocation are partially within the one or more narrowbands.

5.——The method of claim 2, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where the resources of the wideband allocation are not within the one or more narrowbands.

6.——The method of claim 2, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where a center resource block of the resources of the wideband allocation is not within the one or more narrowbands.

7.——The method of claim 2, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where one or more edge resource blocks of the resources of the wideband allocation are within the one or more narrowbands.

8. The method of claim ~~1~~3, further comprising communicating subsequent uplink data over the resources related to the wideband allocation without the frequency hopping offset applied.

9. The method of claim 1, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where at least one or more of the frequency hopped resources, determined based on applying the frequency hopping offset to the wideband allocation of resources, would be at least one of wrapped-around a system bandwidth, outside of the system bandwidth, or outside of the one or more narrowbands.

10. The method of claim 1, wherein determining whether to apply the frequency hopping offset comprises determining not to apply the frequency hopping offset where the wideband allocation of resources have a center resource block not belonging to the one or more narrowbands.

11. The method of claim 1, further comprising applying, based on determining to apply the frequency hopping offset, the frequency hopping offset to the wideband allocation of resources at least in part by adding the frequency hopping offset to a frequency of at least a portion of the wideband allocation of resources that are within the one or more narrowbands.

12. The method of claim 11, further comprising determining the frequency hopping offset based at least in part on adding a different offset to the frequency hopping offset, wherein the different offset is determined based at least in part on a starting resource block of the wideband allocation of resources that is outside of the one or more ~~narrowband allocations of resources~~narrowbands or a center resource block of the wideband allocation of resources that is outside of the one or more narrowbands.

13. The method of claim 1, further comprising:

determining a scheme for frequency hopping based on a received indicator; and

applying, based on determining to apply the frequency hopping offset and based on the scheme, the frequency hopping offset to the wideband allocation of resources.

14. An apparatus for wireless communication, comprising:

a transceiver;

a memory configured to store instructions; and

one or more processors communicatively coupled with the transceiver and the memory, wherein the one or more processors are configured to:

determine a wideband allocation of resources for transmitting uplink wireless communications;

determine a frequency hopping offset related to one or more narrowbands for transmitting uplink wireless communications;

determine whether to apply the frequency hopping offset to the wideband allocation in communicating data based, at least in part, on a location of resources of the wideband allocation with respect to the one or more narrowbands; and

communicate, based on determining whether to apply the frequency hopping offset, the data over resources related to the wideband allocation with the frequency hopping offset applied.

15.—— The apparatus of claim 14, wherein the one or more processors are configured to determine ~~whether~~ to not apply the frequency hopping offset based at least in part on determining ~~a~~the location of resources of the wideband allocation with respect to the one or more narrowbands~~, based at least on a narrowband location of the one or more narrowbands and the resources outside one or more narrowbands.~~.

16.—— The apparatus of claim ~~15~~14, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining to apply the frequency hopping offset where the resources of the wideband allocation are within the one or more narrowbands.

17.—— The apparatus of claim 15, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are partially within the one or more narrowbands.

18.—— The apparatus of claim 15, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are not within the one or more narrowbands.

19.—— The apparatus of claim 15, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where a center resource block of the resources of the wideband allocation is not within the one or more narrowbands.

20.—— The apparatus of claim 15, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where one or more edge resource blocks of the resources of the wideband allocation are within the one or more narrowbands.

21.—— The apparatus of claim ~~14~~16, wherein the one or more processors are further configured to communicate subsequent uplink data over the resources related to the wideband allocation without the frequency hopping offset applied.

22.—— The apparatus of claim 14, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where at least one or more of the frequency hopped resources, determined based on applying the frequency hopping offset to the wideband allocation of resources, would be at least one of wrapped-around a system bandwidth, outside of the system bandwidth, or outside of the one or more narrowbands.

23.—— The apparatus of claim 14, wherein the one or more processors are configured to determine whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the wideband allocation of resources have a center resource block not belonging to the one or more narrowbands.

24.—— The apparatus of claim 14, wherein the one or more processors are further configured to apply, based on determining to apply the frequency hopping offset, the frequency hopping offset to the wideband allocation of resources at least in part by adding the frequency hopping offset to a frequency of at least a portion of the wideband allocation of resources that are within the one or more narrowbands.

25.—— The apparatus of claim 24, wherein the one or more processors are further configured to determine the frequency hopping offset based at least in part on adding a different offset to the frequency hopping offset, wherein the different offset is determined based at least in part on a starting resource block of the wideband allocation of resources that is outside of the one or more ~~narrowband allocations of resources~~narrowbands or a center resource block of the wideband allocation of resources that is outside of the one or more narrowbands.

26.—— The apparatus of claim 14, wherein the one or more processors are further configured to:

determine a scheme for frequency hopping based on a received indicator; and

apply, based on determining to apply the frequency hopping offset and based on the scheme, the frequency hopping offset to the wideband allocation of resources.

27.—— An apparatus for wireless communication, comprising:

means for determining a wideband allocation of resources for transmitting uplink wireless communications;

means for determining a frequency hopping offset related to one or more narrowbands for transmitting uplink wireless communications;

means for determining whether to apply the frequency hopping offset to the wideband allocation in communicating data based, at least in part, on a location of resources of the wideband allocation with respect to the one or more narrowbands; and

means for communicating, based on determining whether to apply the frequency hopping offset, the data over resources related to the wideband allocation with the frequency hopping offset applied.

28.—— The apparatus of claim 27, wherein the means for determining ~~determines~~ whether to apply the frequency hopping offset determines to not apply the frequency hopping offset based at least in part on determining ~~a~~the location of resources of the wideband allocation with respect to the one or more narrowbands~~, based at least on a narrowband location of the one or more narrowbands and the resources outside one or more narrowbands.~~.

29.—— The apparatus of claim ~~28~~27, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining to apply the frequency hopping offset where the resources of the wideband allocation are within the one or more narrowbands.

30.—— The apparatus of claim 28, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are partially within the one or more narrowbands.

31.—— The apparatus of claim 28, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are not within the one or more narrowbands.

32.—— The apparatus of claim 28, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where a center resource block of the resources of the wideband allocation is not within the one or more narrowbands.

33.—— The apparatus of claim 28, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where one or more edge resource blocks of the resources of the wideband allocation are within the one or more narrowbands.

34.—— The apparatus of claim ~~27~~29, further comprising means for communicating subsequent uplink data over the resources related to the wideband allocation without the frequency hopping offset applied.

35.—— The apparatus of claim 27, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where at least one or more of the frequency hopped resources, determined based on applying the frequency hopping offset to the wideband allocation of resources, would be at least one of wrapped-around a system bandwidth, outside of the system bandwidth, or outside of the one or more narrowbands.

36.—— The apparatus of claim 27, wherein the means for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency

hopping offset where the wideband allocation of resources have a center resource block not belonging to the one or more narrowbands.

37.—— A non-transitory computer-readable medium, comprising code executable by one or more processors for wireless communication, the code comprising code for:

determining a wideband allocation of resources for transmitting uplink wireless communications;

determining a frequency hopping offset related to one or more narrowbands for transmitting uplink wireless communications;

determining whether to apply the frequency hopping offset to the wideband allocation in communicating data based, at least in part, on a location of resources of the wideband allocation with respect to the one or more narrowbands; and

communicating, based on determining whether to apply the frequency hopping offset, the data over resources related to the wideband allocation with the frequency hopping offset applied.

38.—— The non-transitory computer-readable medium of claim 37, wherein the code for determining ~~determines~~ whether to apply the frequency hopping offset determines to not apply the frequency hopping offset based at least in part on determining ~~a~~the location of resources of the wideband allocation with respect to the one or more narrowbands~~, based at least on a narrowband location of the one or more narrowbands and the resources outside one or more narrowbands.~~.

39.—— The non-transitory computer-readable medium of claim ~~38~~37, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining to apply the frequency hopping offset where the resources of the wideband allocation are within the one or more narrowbands.

40.—— The non-transitory computer-readable medium of claim 38, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are partially within the one or more narrowbands.

41.—— The non-transitory computer-readable medium of claim 38, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the resources of the wideband allocation are not within the one or more narrowbands.

42.—— The non-transitory computer-readable medium of claim 38, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where a center resource block of the resources of the wideband allocation is not within the one or more narrowbands.

43.—— The non-transitory computer-readable medium of claim 38, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where one or more edge resource blocks of the resources of the wideband allocation are within the one or more narrowbands.

44.—— The non-transitory computer-readable medium of claim ~~37~~39, further comprising code for communicating subsequent uplink data over the resources related to the wideband allocation without the frequency hopping offset applied.

45.—— The non-transitory computer-readable medium of claim 37, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where at least one or more of the frequency hopped resources, determined based on applying the frequency hopping offset to the wideband allocation of resources, would be at least one of wrapped-around a system bandwidth, outside of the system bandwidth, or outside of the one or more narrowbands.

46.—— The non-transitory computer-readable medium of claim 37, wherein the code for determining determines whether to apply the frequency hopping offset at least in part by determining not to apply the frequency hopping offset where the wideband allocation of resources have a center resource block not belonging to the one or more narrowbands.